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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/743,898	01/17/2001	Simon Julian Powers	36-1406	8599
23117	7590	01/19/2007	EXAMINER	
NIXON & VANDERHYE, PC			ANYA, CHARLES E	
901 NORTH GLEBE ROAD, 11TH FLOOR			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22203			2194	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/19/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/743,898	POWERS ET AL.	
	Examiner	Art Unit	
	Charles E. Anya	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10/16/06.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1-11,21-34 is/are allowed.
- 6) Claim(s) 12-16,19 and 20 is/are rejected.
- 7) Claim(s) 17 and 18 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

1. Claims 1-34 are pending in this application.
2. The final office action of 12/15/06 is hereby withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 12-16,19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,219,045 B1 to Leahy et al.**

4. As to claim 12, Leahy teaches an apparatus for estimating the likelihood of an avatar, under the control of a user in a virtual environment, moving within a predetermined range of a boundary, the apparatus comprising: recording means for recording the position of the avatar at intervals to obtain movement data (Col. 3 Ln. 24 – 30, "...updated...input devices 116" Col. 5 Ln. 15 – 24); means for storing data as to the

relative frequency of occurrence of different categories of said movement (Current Avatar Position Register 114 Col. 5 Ln. 15 – 24, Col. 6 Ln. 58 – 64); and means arranged to read, from the stored data prior to the avatar moving across the boundary, frequency data for categories of movement such as would correspond to a potential movement of the avatar from its current position into a position within said predetermined range of said boundary (Rendering Engine 120 Col. 5 Ln. 15 – 30, Col. 5 Ln. 64 – 67, "...position of the avatar is needed for rendering the avatar in the correct place" Col. 6 Ln. 1 – 2, Col. 7 Ln. 40 – 57).

5. As to claim 13, Leahy teaches the apparatus according to claim 12, wherein said means for storing data is arranged to discard data relating to movement after a set period of time (Col. 9 Ln. 1 – 7).

6. As to claim 14, Leahy teaches the apparatus according to claim 12, wherein said recording means is adapted to record the position of said avatar at regular intervals of time in said virtual environment ("...periodically update..." Col. 7 Ln. 48 – 57).

7. As to claim 15, Leahy teaches the apparatus according to claim 12, wherein the potential movement of the avatar takes into consideration obstructions to the movement of said avatar within said virtual environment ("...constraints on where..." Col. 5 Ln. 37 - 41).

8. As to claim 16, Leahy teaches the apparatus according to claim 12, wherein said predetermined range is dependent upon a range of awareness of said avatar within which said avatar can experience the virtual environment (Col. 5 Ln. 64 – 67, "...position of the avatar is needed for rendering the avatar in the correct place" Col. 6 Ln. 1 – 2).

9. As to claim 19, Leahy teaches the apparatus according to claim 12, wherein said categories of movement are determined by the movement of said avatar into areas around said avatar (Col. 5 Ln. 26 – 30, Col. 5 Ln. 64 – 67, Col. 6 Ln. 1 – 2).

10. As to claim 20, Leahy teaches the apparatus according to claim 12, wherein said categories of movement are determined by directions and distances of movement of said avatar ("...position and orientation..." Col. 7 Ln. 48 – 52).

Allowable Subject Matter

11. Claims 1-11 and 21-34 are allowed.

Claims 17 an 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 5,353,042 to Klapman et al.: directed to method of determining the orientation of an object.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cea.

A handwritten signature in black ink, appearing to read "CEA THOMSON". Below the signature is a circular official stamp. The stamp contains the text "U.S. PATENT AND TRADEMARK OFFICE" around the top edge, and "ART UNIT 2194" in the center.

Charles E Anya
Examiner
Art Unit 2194